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MODEL FACILITY PLAN FOR A SMALL COMMUNITY,
SUPPLEMENT TO: GUIDANCE FOR PREPARING A FACILITY
PLAN, MUNICIPAL WASTEWATER TREATMENT WORKS
CONSTRUCTION GRANTS PROGRAM

ENVIRONMENTAL PROTECTION AGENCY

SEPTEMBER 1975

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16. Abstracts Under the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500), a municipality must prepare a facility plan as part of their Step 2 grant application for the construction of a wastewater treatment works. This model plan for a fictitious small, rural community supplements the <u>Guidance for Preparing a Facility Plan</u> , published in May 1975. This plan is provided for illustrative purposes only and should not be read as an ironclad guide to facility planning for small, rural communities. The Guidance for Preparing a Facility Plan and other guidance in the grants program emphasize repeatedly that the amount and level of detail required will vary with local circumstances, the size and nature of needed facilities and the extent of previous planning efforts.				
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MODEL FACILITY PLAN for a SMALL COMMUNITY

**Supplement to: Guidance for Preparing
A Facility Plan**

**MUNICIPAL WASTEWATER TREATMENT WORKS
CONSTRUCTION GRANTS PROGRAM**



September 1975

**U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Water Program Operations
Washington, D.C. 20460**

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MCD-00

MODEL
FACILITY PLAN
for
a Small, Rural Community

BRANT,
SOUTH DAKOTA

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FOREWORD

This model plan for a fictitious small, rural community supplements the Guidance for Preparing a Facility Plan, published in May 1975.

The plan is for a small community with relatively simple pollution problems to comply with facility planning regulations and assure cost-effective and environmentally sound waste treatment works. The problems addressed are typical of many small communities which do not have an infiltration/inflow problem; are located within effluent limitation segments; have few environmental constraints; and have no industries.

In general, we would expect a more comprehensive plan for a community faced with more complex problems. Where a community is not faced with such a situation, however, this plan may aid in preparing a facility plan expeditiously and at minimum cost.

This plan is provided for illustrative purposes only and should not be read as an ironclad guide to facility planning for small, rural communities. The Guidance for Preparing a Facility Plan and other guidance in the grants program emphasize repeatedly that the amount and level of detail required will vary with local circumstances, the size and nature of needed facilities and the extent of previous planning efforts. Municipalities and their consultants are expected to exercise professional judgment in determining the content of facility plans.

We welcome your suggestions for changes, additions or deletions which would help achieve the Agency's objective of timely preparation of facility plans of quality.

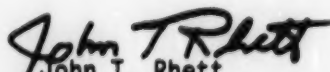

John T. Rhett
Deputy Assistant Administrator
for Water Program Operations (WH-547)

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1. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The Town of Brant is a small, rural community with a present population of about 475. The sewage collection system and treatment plant were constructed in 1950. The plant was designed to provide primary settling and digestion of sludge in an Imhoff tank and an intermediate degree of biological treatment by a trickling filter. The plant is inoperable and untreated sewage is discharged to a confined area. The Town has a responsibility to meet the new State and Federal regulatory requirements for secondary treatment. To alleviate the wastewater management problems identified in the preparation of this report, several alternatives for sewage treatment and effluent disposal were considered. Treatment alternatives considered involved: (1) remodeling the existing treatment plant; (2) abandoning the existing treatment facility and providing a 3-cell stabilization pond system, or (3) providing complete retention of sewage in lagoons (zero discharge), or (4) providing treatment with land application by spray irrigation; or (5) installing a waste treatment package plant. Specific conclusions and recommendations from this study are presented below.

Based on the results of this investigation, it can be concluded that:

1. excessive infiltration and inflow does not exist,
2. State and Federal regulations related to secondary treatment cannot be met by the presently inoperable treatment plant, and
3. the present discharge of untreated sewage causes public health hazards and odor problems.

After evaluating the economic, environmental, and social costs related to the alternative plans, it is recommended that:

1. the existing treatment plant be abandoned and a 3-cell stabilization pond system be constructed to provide adequate treatment of the Town's sewage, and
2. a Step 2 grant should be applied for to design the proposed facility.

In accordance with the Environmental Protection Agency's Program Guidance Number 55, Subject: Format for Reporting Costs of Planned Treatment Works in Step 1 Facilities Plans, dated July 25, 1975, the following page presents a Summary of Costs of Planned Treatment Works Scheduled by Project and Category for Brant, South Dakota.

Exhibit 1, included in the appendix, contains a copy of the letter, Subject: State Intergovernmental Clearinghouse "Letter of Clearance" on Project Review in Conformance with OMB Circular No. A-95.

Exhibit 2, included in the appendix, contains a statement specifying that the Requirements of Title VI of the Civil Rights Act of 1964 and of Part 7 of 40 CFR have been satisfied.

SUMMARY OF COSTS OF PLANNED TREATMENT WORKS SCHEDULED BY PROJECT AND CATEGORY (Read instructions on reverse before completing form)			MUNICIPALITY (Applicant): <u>TOWN OF BRANT, SOUTH DAKOTA</u>			
1		* SECOND ** PROJECT	* THIRD PROJECT	* FOURTH PROJECT	* FIFTH PROJECT	TOTAL ALL PROJECTS
2.	PROJECT STEP	STEP 2	STEP 3	STEP	STEP	
3.	ESTIMATED CALENDAR QTR/YEAR APPLICATION WILL BE SUB- MITTED TO EPA FOR FUNDING	3/75	1/76			
		\$ 14,400	\$	\$	\$	\$ 14,400
4.	a. CATEGORY I Secondary Treatment and BPWT		55,440			55,440
	b. CATEGORY II More Stringent Treatment					
	c. CATEGORY IIIA Infiltration/Inflow Correction					
	d. CATEGORY IIIB Major Sewer System Rehabilitation					
	e. CATEGORY IVA New Collectors, etc.					
	f. CATEGORY IVB New Interceptors, etc.		45,360			45,360
	g. CATEGORY V Correction of Combined Sewer Over- flows					
	h. CATEGORY VI Treatment and/or Control of Stormwaters					
5.	TOTAL ESTIMATED COST OF RECOMMENDED PROJECTS	\$ 14,400 ¹	\$ 100,800 ²	\$	\$	\$ 115,200
6.	STEP 1 PROJECT COST Project No. C <u>99999999</u> -01					\$ 2000
7.	GRAND TOTAL ESTIMATED COST OF ALL PROJECTS TO BE INCLUDED IN THE ENTIRE GRANT					\$ 117,200
8.	COST ESTIMATES OF RECOMMENDED PROJECTS WERE COMPUTED AS OF <u>June 1975</u> AND REFLECT THE LATEST (month and year) CONSTRUCTION COST INDEX OF <u>225.2</u> AS REPORTED BY THE ENGINEERING NEWS RECORD					
NOTE: Suggested format for data to be included in the facilities plan.						
* Include project description in Facilities Plan narrative.						
** The First Project is the initial (Step 1) project under this grant for the treatment works.						
1 INCLUDES ENGINEERING AND PROPORTIONED SHARE OF LEGAL, FISCAL & ADMINISTRATIVE COSTS						
2 INCLUDES CONTINGENCY AND PROPORTIONED SHARE OF LEGAL, FISCAL & ADMINISTRATIVE COST						

2. INTRODUCTION

2.1 Study Purpose and Scope

The waste treatment system for the Town of Brant, South Dakota, constructed in 1950, consists of a sewage collection system and plant units including a lift station, Imhoff tank, trickling filter, final settling tank and sludge drying beds. The treatment plant units are presently inoperable because of disrepair. The existing treatment facilities cannot be made functional without major renovations or replacement of the treatment works with new facilities.

The purposes of this facility plan are to (1) develop and evaluate alternative waste treatment approaches, (2) choose the plan which will best solve the problem, and (3) present the preliminary designs for that plan.

2.2 Planning Area (MAP)

The Town of Brant, South Dakota, is located in Burnham County along South Dakota Highway 99. The planning area, as determined by the State in conjunction with local officials, encompasses the entire Town of Brant. Figure 1 shows the planning boundaries on a topographic map. Exhibit 3, included in the Appendix, shows the layout of the Town and its present water and sewer system in detail.

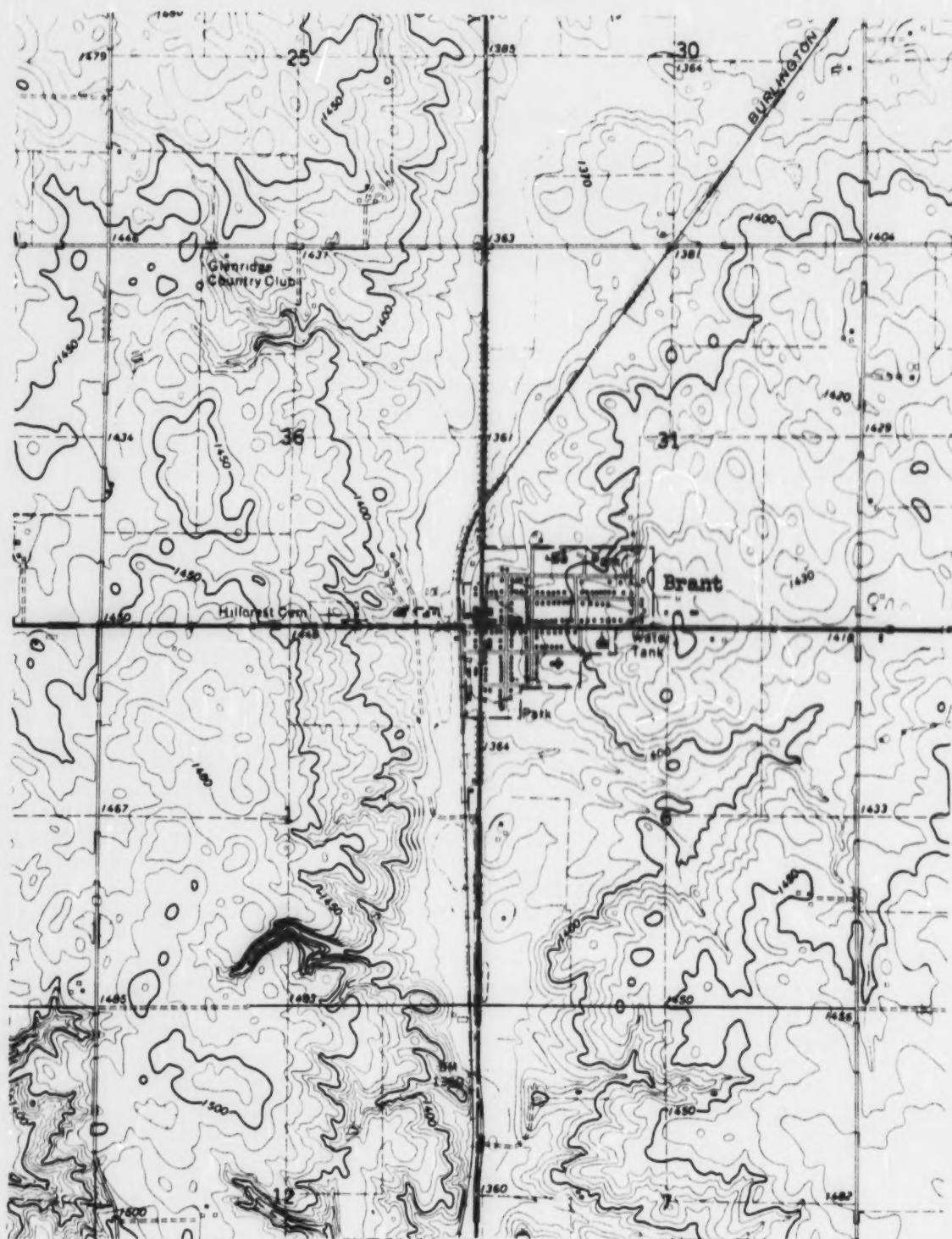
3. EFFLUENT LIMITATIONS

Pursuant to the State of South Dakota continuing planning process, all of the water segments in the area have been classified as "effluent limitation segments." Thus, any projects for the construction of publicly owned waste treatment works must provide for the application of the best practicable waste treatment technology (BPWTT). The identification of and provision for applying BPWTT is to be based on consideration of alternative waste treatment management techniques including biological or physical-chemical treatment and discharge to receiving waters, treatment and reuse, and land application.

The United States Environmental Protection Agency (EPA) has issued a municipal discharge permit to the Town of Brant which expires on December 31, 1976. The permit is included as Exhibit 4 in the Appendix.

The quality of effluent discharge must, as a minimum, meet the following limitations no later than December 31, 1976:

Figure 1
Brant, South Dakota



--- Planning Area Boundary

TABLE 1
Average Effluent Concentration

<u>Parameter</u>	<u>30 Consecutive Day Period</u>	<u>7 Consecutive Day Period</u>
BOD ₅ - mg/l	30	45
Total Suspended Solids - mg/l	30	45
Fecal Coliform - number/100 ml	200	400
Total Residual Chlorine - mg/l	0.5	
pH - units	Shall remain between 6.0 and 9.0	

The methods of sampling and allowable deviations are outlined in the permit.

4. CURRENT SITUATION

4.1 Conditions in Planning Area

4.1.1 Institutions

The Town Council for the Town of Brant is responsible for the planning, financing and operating publicly owned waste treatment works in the planning area. As indicated by Exhibit 6, the Brant Town Government has the necessary legal, financial, institutional, and managerial resources to construct, operate, and maintain a wastewater treatment system.

4.1.2 Economic, demographic and land-use data

The Town of Brant is a small community with an active retail business which serves the surrounding farm trade area. The economy is based on agriculture and allied enterprises. The community has no manufacturing industries or large commercial establishments nor does it anticipate any in the future.

A modern public grade and high school system serves the community and most of the surround farming area within 15 miles. A small nursing home is located in the community.

The Series E economic and population projections (OBERS) developed by the Bureau of Economic Analysis (BEA) project over the planning period a population decline of less than 1 percent for the State and for the disaggregated areas (BEA economic area and non-SMSA portion of BEA economic area) which include the Town of Brant.

The population of Brant, however, has increased slowly at a rate of slightly more than 1 percent between 1950 and 1960 and between 1960 and 1970. Even though the State, as a whole, is projected to have a decrease in population over the next twenty years, it seems reasonable to assume

that the Town of Brant may continue to grow slowly from natural growth and intra- and interstate migration.

The South Dakota Department of Environmental Protection has reviewed and approved the population projection of 550 persons by the year 1997 for this facility plan. Table 2 presents past population data and projections.

TABLE 2
Population
Data and Projections
Brant, South Dakota

<u>Year</u>	<u>Population</u>
1950 (U.S. Census)	374
1960 " "	399
1970 " "	461
1977 (Projected)	480
1997 " "	550

4.1.3 Water uses and quality

A public water system supplied by wells serves the community. The wells, as shown on Exhibit 3, are located in the northeast part of the town.

The present discharge of untreated sewage to the confined area does not provide for any degree of treatment. Conditions that favor natural biological treatment and accompanying bacterial reduction such as in a well constructed and maintained stabilization pond system are not present. Control of the operation is not possible. The present discharge of untreated sewage causes public health hazards and odor problems. Mosquitos breed in the area and their control is difficult due to a heavy growth of vegetation.

4.1.4 Environmental conditions

With its long severe winters and hot summers, the climate typifies the continental climate of the north-central States. Annual precipitation amounts to about 20 inches, of which about 1/3 occurs as snow.

Gentle rolling plains characterize the topography of the area. Soils range from clays to mixtures of clay and silt.

There are no surface water impoundments in the planning area. An overburden of impermeable clays protects the excellent water quality of groundwater aquifers.

The plant effluent originally discharged to a drainage ditch which was closed by the adjacent downstream landowner a number of years ago. Efforts to reopen the ditch have been unsuccessful. Presently, untreated sewage is bypassed to a confined area near the plant. Except for this problem area at the present discharge location, there are no known environmental factors such as wetlands, flood plains and waterways, unique plant or animal communities, or other important fish and wildlife habitats; historic, archeological and cultural features; air quality factors; or other factors that would be significantly affected by the waste treatment alternatives. (See letters and comments contained in Exhibit 5).

4.2 Existing Treatment Systems and Wastewater Flows

The sewage collection system, constructed in 1950, serves the developed areas of the town. Pipes have been extended as required to serve new areas. The sanitary sewer system consists of approximately 10,400 feet of 8-inch and 1,200 feet of 10-inch vitrified clay pipes with predominantly oakum - bituminous joints. No combined sewers or storm water inlets exist.

The existing wastewater treatment plant comprises a lift station, Imhoff tank, trickling filter, final settling tank, and sludge drying beds. The lift station, located adjacent to the Imhoff tank, consists of two wet-pit pumps and a raw sewage bypass. Frame buildings cover all units with the exception of the sludge drying beds. The system was originally designed and constructed to handle 30,000 GPD of sewage.

All the plant units need repair, and mechanical equipment, such as the lift station pumps, filter distributor, and the recirculation pump, requires replacement. The lift station pumps have been repaired frequently and are presently inoperable. As a result, sewage bypasses the treatment plant and flows untreated to a confined area near the plant.

The flow of the domestic influent wastewater averaged about 36,850 gallons per day during a 10 day measurement period in October 1974. Total flow measurements were obtained at a 90° V-notch weir which was installed in the downstream manhole of the collection system. Flows were measured at hourly intervals throughout the period and total daily flows were calculated. Table 3 summarizes the average daily flows for the 10-day observation period.

TABLE 3
Average Daily Wastewater Flows-GPD

<u>Date</u>	<u>Flow (GPD)</u>	<u>Notes</u>
October 12, 1974	37,500	
October 13, 1974	42,000	
October 14, 1974	35,000	
October 15, 1974	36,000	
October 16, 1974	41,000	
October 17, 1974	35,000	
October 18, 1974	35,000	
October 19, 1974	33,000	Rain of 1 inch
October 20, 1974	34,000	
October 21, 1974	<u>40,000</u>	
Average 36,850		

The per capita flow, based on an estimated resident population of 475 and an assumed resident population equivalent of 62 for the 250 students from outlying areas, amounts to 68 gallons per day, about average for a community of the same size.

Hourly flow measurements obtained October 12, 1974, indicate the diurnal flow pattern during dry weather as shown by Figure 2.

4.3 Infiltration and Inflow

An infiltration/inflow analysis of the sewage collection system was completed as one of the requirements for grants for wastewater treatment facilities from the U.S. Environmental Protection Agency and the South Dakota Department of Environmental Protection.

Groundwater does not migrate freely in the near impervious clay and silty clay soils.

As previously noted, oakum-bituminous joints were provided throughout the sewer system. There are also 40 manholes located throughout the system. Thirty manholes are brick and mortar construction and ten are precast concrete. A visual inspection of several key manholes indicated that these manholes were in excellent repair. Lamping of several sewer reaches showed no signs of deposition, root intrusion, or disrepair. Wastewater flows were measured during the early morning hours of May 4, 1974, 5 days after a 3 week period of snowmelt and intermittent precipitation. Inspection of the water level gauges installed in several key manholes indicated groundwater elevations were below the sewer levels. Table 4 indicates the flow measurements from 12:00 p.m. to 5:00 a.m. and compares them to the expected dry weather flow measurements taken October 12, 1974.

RAW WASTEWATER FLOWS

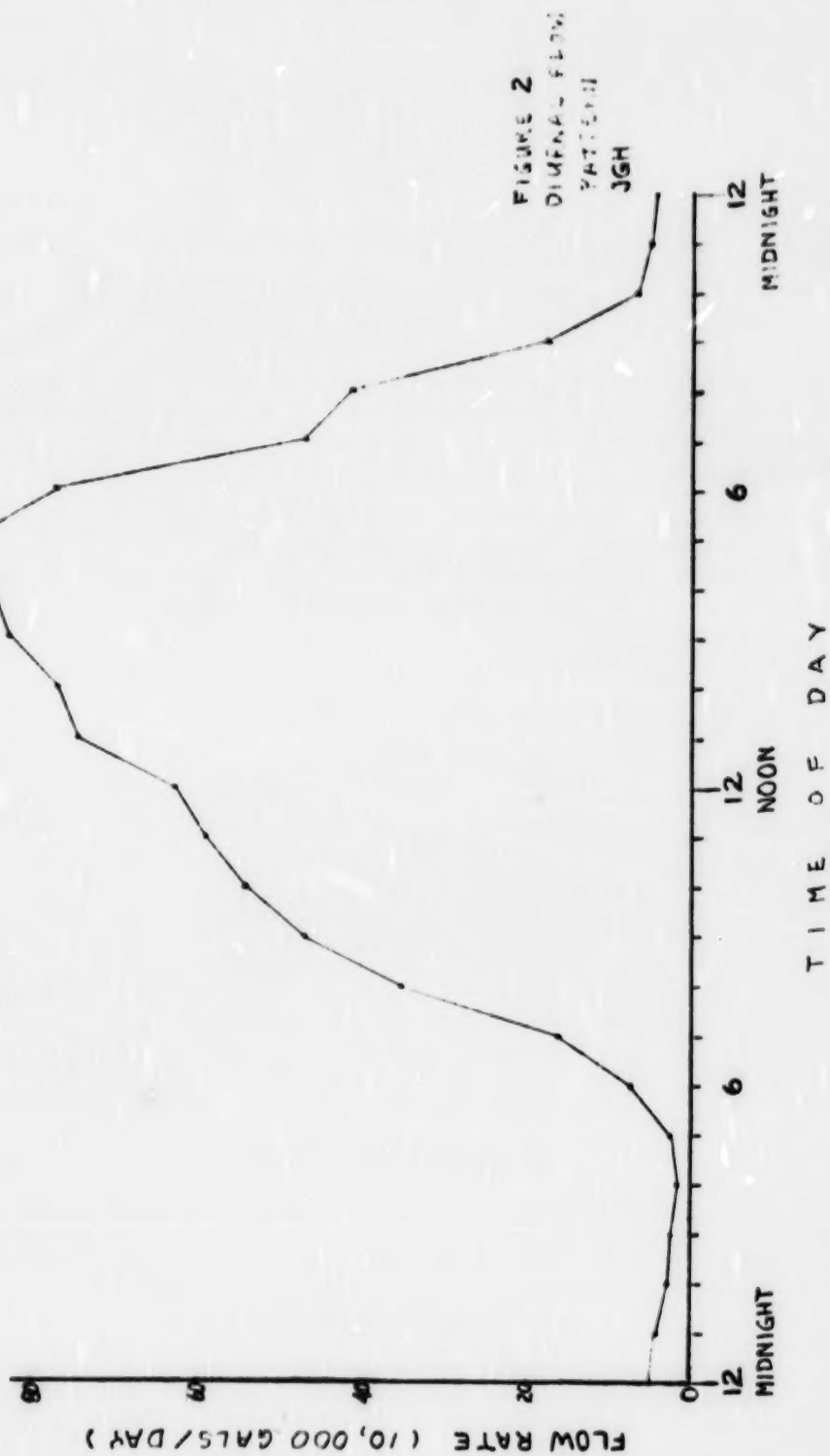


TABLE 4
Infiltration Analysis

	Flow 5/4/74 Gals/Hour	Flow 10/12/74 Gals/Hour	Infiltration Gals/Hour
12:00 p.m.	225	200	25
1:00 a.m.	250	175	75
2:00 a.m.	210	125	85
3:00 a.m.	180	100	80
4:00 a.m.	140	80	60
5:00 a.m.	175	100	75

Table 4 shows that the flows recorded during a high water table condition on May 4, 1974, do not greatly exceed those expected under dry weather conditions. The maximum infiltration is about 85 gallons per hour or 1.5 gallons per minute.

Wastewater flows were measured on October 26, 1974, during a storm producing 3 inches of rainfall in 6 hours to determine whether an inflow problem exists in the Town's sewer system. Table 5 summarizes the measurements and compares them with dry weather measurements obtained on October 12.

TABLE 5
Inflow Analysis

Time of Measurement	Flow 10/26/74 Gals/Hour	Flow 10/12/74 Gals/Hour	Inflow Gals/Hour
11:00 a.m.	2375	2450	
12:00 a.m.	2750	2600	150
1:00 p.m.	3250	3100	150
2:00 p.m.	3375	3200	175
3:00 p.m.	3665	3450	215
4:00 p.m.	3650	3550	100

As indicated by Table 5, the flows recorded during the storm were only slightly higher than flows preceding the storm. Because of relatively dry ground conditions, infiltration was assumed to be negligible. The maximum inflow is about 215 gallons per hour or 3.6 gallons per minute.

It is apparent from the above information that the sewer system is in very good condition and that the infiltration and inflow can be considered negligible since neither amounts to more than that which could be expected from typical infiltration/inflow sources. The cost to transport and treat such minimal flows would be more cost-effective than the cost to rehabilitate the system. Thus, the infiltration/inflow analysis demonstrates that a sewer evaluation survey would not be cost-effective or environmentally sound and, thus, is not required.

5. FUTURE SITUATION - Forecast of Flow and Waste Loads

The proposed improvements are based on projected 1997 flows and waste loads which, in turn, are related to projected increases of population. Students residing outside the community contribute a load to the system also. Data obtained from school officials regarding present and future enrollments were used as a basis for evaluating needs for the public school system. The present school enrollment includes 250 students from outlying areas. The number of outside students is not expected to increase substantially in future years. Thus, it was assumed that outside students would increase by only 20 per cent during the next 20 years resulting in a total of 300 students. For determining design flows and wasteloads, four outside students were considered to be equivalent to one permanent resident.

Projected population and school enrollment to the year 1997 which will be used as a basis of design is summarized as follows:

Resident Population-----	550
Outside Students-----	300
Total Equivalent Resident Population---	625

The following flow and waste loading criteria have been adopted:

Waste Flow-----	80 Gallons/Person/Day
B.O.D.-----	0.15 Pounds/Person/Day
Total Suspended Solids-----	0.20 Pounds/Person/Day
Outside Students-----	25% of Permanent Residents

The waste flow of 80 gallons per capita per day was determined by assuming that water consumption and thus waste water flow would gradually increase at a rate slightly less than 1 percent over 20 years.

The design of wastewater treatment facilities is based on the following:

B.O.D.-----	94 Pounds/Day
Suspended Solids (625 x 0.20)---	125 Pounds/Day
Average Flow (625 x 80)-----	50,000 Gallons/Day
	or 35 Gallons/Minute
Maximum Hourly Flow-----	125,000 Gallons/Day
(250% x Average)	or 87 Gallons/Minute

6. ALTERNATIVES

6.1 Regional Solutions

Because of its geographic location and distance from other communities in the area, regional solutions to wastewater treatment problems are not possible.

6.2 Alternative Waste Treatment Systems

The following alternative waste treatment and management techniques for Best Practicable Waste Treatment Technology (BPWTT) were considered:

1. treatment (biological or physical-chemical and discharge)
2. treatment and reuse
3. land application

The implications of the "no action" plan were also considered. The "no action" plan would mean that the presently inoperable treatment plant would continue to be bypassed with discharge to a confined area near the plant with resultant violation of permit conditions.

Further, the discharge of untreated sewage results in a serious health hazard and odor problems. Mosquitos breed in the area and control is difficult due to the heavy growth of vegetation.

6.3 Evaluation (monetary, environmental, implementation)

Alternative methods included under three categories of wastewater treatment management techniques for BPWTT were considered as follows:

1. Biological treatment and discharge,
 - a. Remodel existing plant
 - b. Stabilization ponds
 - c. Complete retention in lagoon (zero discharge)
 - d. Package plant
2. Treatment and reuse, and
3. Land application of effluent by spray irrigation.

Treatment and reuse is not a viable option since no industries exist and there are no other opportunities, such as watering golf courses or highway median strips etc., for reuse of non-potable water.

Alternative 1a - Remodel Existing Plant

Complete remodeling of the existing treatment plant to provide secondary treatment would be required. Major elements of the remodeling program would include upgrading the single-stage low-rate trickling filter by improving distribution by recirculation, repairing the existing Imhoff tank, constructing a new structure over the Imhoff tank, providing a new lift station, overhauling or replacing the rotary distributor head, installing a new recirculation pump, and constructing a final clarifier of adequate size and in a new location to avoid present flooding problems. A chemical additive system would be provided to insure meeting secondary treatment requirements. The cost of chemicals would increase operation and maintenance costs. Disinfection would be provided by a vacuum-feed chlorinator.

Effluent meeting effluent limitations set by the NPDES permit would be discharged to an intermittent stream tributary to Turkey Creek. Sludge would be dried on the existing sludge drying beds and disposed of in sanitary land fill sites.

Estimated costs for remodeling and additional treatment units are shown in Table 6.

TABLE 6
Alternative 1a - Remodel Existing Plant
Capital Costs and Salvage Values

Item	Cost, dollars	Life, years	Salvage Value, dollars
Lift Station	\$ 25,000	20	0
Remodel treatment plant	75,000	25	15,000
Effluent pump station	25,000	25	5,000
4" Force main (3000 ft.)	15,000	50	9,000
Total construction cost	\$140,000		
Salvage value at year 20			29,000
Sites and easements	5,000		5,000
Contingencies and engineering	35,000		
Total Capital Cost	\$180,000		
Annual O&M Costs	5,000		

Alternative 1b - Three-Cell Stabilization Pond System

Stabilization ponds will provide efficient trouble-free wastewater treatment when properly designed, constructed, operated and maintained. Such ponds are usually designed to accommodate 20-25 pounds/BOD₅/acre/day loading rate.

Sludge accumulation is not considered a problem in the operation of stabilization ponds. Wave action disperses any sludge accumulations which may develop under ice cover. The amount of residual sludge is so small compared to the volume of the ponds that removal of the accumulations need not be considered.

Effluent meeting effluent limitations set by the NPDES permit would be discharged intermittently, in late Spring and late Fall, to an intermittent stream tributary to Turkey Creek.

The cost estimate for a three-cell stabilization pond system is shown in Table 7.

TABLE 7
Alternative 1b - Three-Cell Stabilization Pond System
Capital Costs and Salvage Values

Item	Cost, dollars	Life, years	Salvage Value, dollars
10" Gravity sewer (700 ft.)	\$ 7,000	50	\$ 4,200
Lift station	25,000	20	0
4" Force main (2800 ft.)	14,000	50	8,400
Stabilization ponds (8.8 acres)	44,000	50	26,400
Total construction cost	\$90,000		
Salvage value at year 20			\$39,000
Sites and easements	9,000		9,000
Contingencies and engineering	25,000		
Total Capital Cost	\$124,000		
Annual O&M Costs	2,500		

Alternative 1c - Complete Retention in Lagoon (Zero Discharge)

On the basis of a minimum net evaporation loss of 24 inches per year and an average sewage flow of 50,000 gallons per day, an area of 28 acres of water surface would be required if seepage losses were neglected. Assuming some seepage losses, a minimum of 25 acres of lagoon water surface can be assumed.

The estimated cost for a withholding lagoon is shown in Table' 8.

TABLE 8
Alternative 1c - Complete Retention in Lagoon (Zero Discharge)
Capital Costs and Salvage Values

Item	Cost, dollars	Life, years	Salvage Value, dollars
10" Gravity sewer (700 ft.)	\$ 7,000	50	\$ 4,200
Lift station	25,000	20	0
4" Force main (3600 ft.)	18,000	50	10,800
Lagoon (25 acres)	125,000	50	75,000
Total construction cost	\$175,000		
Salvage value at year 20			\$ 90,000
Sites and easements	40,000		40,000
Contingencies and engineering	35,000		
Total Capital Cost	\$250,000		
Annual O&M Costs	3,000		

Alternative 1d - Package Plant

Several different models of waste treatment package plants are available from manufacturers. These package plants, using biological treatment technology, employ either contact stabilization or extended-aeration activated sludge units.

The package plant could be located on the site proposed for the three-cell waste stabilization pond system (1b). This would preclude an effluent pump station as required in alternative 1a. Effluent meeting or exceeding effluent limitations set by the NPDES permit would be discharged to an intermittent stream to Turkey Creek.

Proper operation and maintenance is absolutely crucial to the successful performance of package treatment plants. Virtually all recorded failures of package plants can be traced to improper operation, to neglect, or to inadequate maintenance, or to any combination of these. Thus, to insure adequate treatment it will be necessary to have a part-time, State certified operator maintaining the plant.

The cost estimate for a package plant capable of handling 50,000 gallons per day utilizing extended aeration with a loading rate of 10 lbs. BOD/1,000 cu. ft. of aeration tank capacity and a detention time of 24 hours is shown in Table 9.

TABLE 9
Alternative 1d - Waste Treatment Packages Plant
Capital Costs and Salvage Values

Item	Cost, dollars	Life, years	Salvage Value, dollars
10" Gravity sewer (700 ft.)	7,000	50	\$ 4,200
Lift Station	25,000	20	0
Package plant	85,000	20	0
4" Force main (3000 ft.)	15,000	50	9,000
Total construction cost	\$132,000		
Salvage value at year 20			13,200
Sites and easements	9,000		9,000
Contingencies and engineering	33,000		
Total Capital Cost	\$174,000		
Annual O&M Costs	7,500		

Alternative 3 - Land Application of Effluent

Land application facilities would require holding lagoons with capacity for storage of 9 months sewage flow. Irrigation can normally be practiced for a maximum of 90 days per year. Storage in lagoons is proposed with crop application by spray irrigation with an application rate of 5-inches per acre per week.

The estimated costs for storage in lagoons and land application are indicated in Table 10.

TABLE 10
Alternative 3 - Land Application of Effluent
Capital Costs and Salvage Values

Item	Cost, dollars	Life, years	Salvage value, dollars
10" Gravity sewer (700 ft.)	\$ 7,000	50	\$ 4,200
Lift station	25,000	20	0
4" Force main (3600 ft.)	18,000	50	10,800
Storage lagoon (10 acres)	75,000	50	45,000
Irrigation pump station	15,000	20	0
Spray irrigation system	15,000	20	0
Land for spray irrigation (15 acres)	15,000	Permanent	15,000
Total construction cost	\$175,000		
Salvage value at year 20			\$ 75,000
Sites and easements	40,000		40,000
Contingencies and engineering	40,000		
Total Capital Cost	\$250,000		
Annual O&M Costs	4,000		

7. PLAN SELECTION

7.1 Views of Public and Concerned Interests on Alternatives

No objections have been expressed or received regarding the project to date. A public hearing regarding the economic and social effects of the location, design and environmental impact of each alternative was held at the Brant Town Hall at 8:00 P.M. on November 4, 1974. A record of the meeting and notice of the public hearing are included as Exhibit 6 in the appendix.

Letters and comments from the agencies consulted below during the development of the plan are included as Exhibit 5 in the appendix.

1. South Dakota Department of
Environmental Protection
Pierre, South Dakota 57501
2. State Historic Preservation Officer
Department of Education & Cultural Affairs
Pierre, South Dakota 57501
3. Southeastern Council of Governments
208 East 13th Street
Sioux Falls, South Dakota 57102

4. Burnham County Planning Commission
Burnham County Courthouse
Burnham, South Dakota
5. U.S. Fish and Wildlife Service
Federal Building
Pierre, South Dakota 57501
6. U.S. Army Corps of Engineers
Omaha District Engineer
Omaha, Nebraska 68101

7.2 Trade-off Evaluation and Ranking of Proposals

The alternatives evaluated in detail include (1) remodeling of existing plant, (2) a 3-cell stabilization pond system, (3) complete retention in a lagoon, (4) a package plant, and (5) spray irrigation of effluent. The alternatives were evaluated with respect to direct monetary costs, environmental impacts, effluent requirements, and operation considerations.

The existing plant would require extensive remodeling and additional units to meet current effluent requirements. The effluent drainage problem would also need to be solved either by legally opening the drainage ditch (closed several years ago by the land owner) or pumping the effluent 3000 feet to the downstream discharge point. Operation and maintenance of this mechanically operated facility would be costly and present a continuing problem because of the severe winters experienced.

Complete withholding of wastes in a lagoon or withholding of 9-months of waste for later irrigation are somewhat similar to the 3-cell stabilization pond system proposal except that, for the former alternatives, more than twice as much land is required for flow storage. Also, both of the former methods cost more to construct and operate than the 3-cell stabilization pond system. Thus, they do not compare favorably with the stabilization pond system.

Installation of a waste treatment package plant would provide adequate treatment of wastes. Operation and maintenance costs, however, would be high. Such a plant would require a full-time, State certified operator to ensure proper operation of the unit to meet water quality effluent criteria. Energy costs would also be high because the severe winters would require that the plant be installed in a heated building.

Stabilization ponds provide a method of treatment which requires significantly less close attention and maintenance than a mechanical plant. As a result, the quality of treatment has been shown to be better with stabilization ponds than conventional mechanical plants in the smaller communities. Effluent discharges from the stabilization ponds will be controlled and will be made only during selected periods. The ponds would be drained only when the effluent would meet secondary treatment requirements and would have limited adverse impacts on stream water quality.

Table 11 presents the economic evaluation of the alternatives. The dollar amounts are rounded off to the nearest 100 dollars.

The environmental effects that are common to each alternative are as follows:

1. Each alternative would have minor adverse impacts to the water quality of Turkey Creek.
2. Each alternative would reduce the public health hazards and odor problems at the existing discharge point.
3. None of the alternatives would have significant primary adverse impacts on:
 - a. plant and animal communities,
 - b. ecosystems,
 - c. endangered or locally threatened species,
 - d. unique or vulnerable environmental features,
 - e. unique archeological, historic, scientific or cultural areas, parks, wetlands, or stream corridors,
 - f. community growth patterns and land use trends,
 - g. air quality, or
 - h. aesthetics.
4. None of the alternatives will have significant secondary effects.

The environmental effects that differ among the alternatives include:

1. Remodeling of the existing treatment plant or installation of a package plant would require more fuel and power for continued operation whereas the storage ponds would require fuel or power input for pumping operations only;
2. The storage pond alternatives require several acres of land that will be permanently lost to agriculture; however, the productivity of the proposed area is presently minimal; and
3. Some terrestrial wildlife habitat would be lost in the proposed storage pond areas.

Table 12 summarizes the ranking of each alternative.

TABLE 11
ECONOMIC EVALUATION OF ALTERNATIVES¹

Item	Interest ² Factor	Remodel Existing Plant	Waste Stabilization Pond System	Complete Retention in Lagoon (Zero Discharge)	Package Plant	Land Application of Effluent
Capital Cost	1.00000	\$150,000	\$124,000	\$250,000	\$174,000	\$250,000
Interest During ³ Construction	1.00000	1,100	900	1,900	1,300	1,900
Salvage Value	0.30454	-10,400	-14,600	-39,600	-6,800	-35,000
Total Present Worth		140,700	110,300	212,300	168,500	216,900
Average Annual ⁴ Equivalent Cost	0.08807	\$ 12,400	\$ 9,700	\$ 18,700	\$ 14,800	\$ 19,100
Annual Operation and Maintenance Cost		5,000	2,500	3,000	7,500	4,000
Annual Net Return ⁴ from Sale of Crops						-1,500
Total Average Annual Equivalent Cost		\$17,400	\$ 12,200	\$ 21,700	\$ 23,300	\$ 21,600

1. Reference: Engineering Economy, by E.L. Grant and W.G. Ireson, Ronald Press, New York, 1970

2. Interest (Discount) Rate = 6 and 1/8 percent. Effective 1 July 1975. Published annually in the Federal Register, 40 CFR 3200, by the U.S. Water Resources Council

3. Reference: 40 CFR Part 35, Subpart E, Appendix A(f)(6)

4. Assume Net Return from Sale of Crops @ \$50 per Acre.

TABLE 12
Ranking of Final Alternative Proposals

	Rank of Alternative Proposals				
	<u>1a</u>	<u>1b</u>	<u>1c</u>	<u>1d</u>	<u>3</u>
1. Environmental Effects	2	2	3	1	2
2. Monetary Costs	4	1	5	5	5
3. Implementation Capacity	3	1	2	2	2
4. Contribution to Objective and Goals	3	2	1	1	1
5. Energy and Resources use	5	1	4	4	3
6. Reliability	3	1	1	2	1
7. Public Acceptability	3	1	2	3	2
8. Composite Ranking	3	1	2	3	2

7.3 Selected Plan

On the basis of the cost-effectiveness analysis, effluent requirements, public involvement, operational considerations, and the probable effects on the environment, the three-cell waste stabilization pond system (Alternative 1b) was selected.

7.4 Environmental Impacts of Selected Plan

The proposed treatment facility ponds will be constructed on land which is primarily used for grazing. Much of the site is unsuitable for crop farming since it is a low area and cannot be properly cultivated during wet seasons. As such, the productivity is limited to grazing during suitable weather conditions. No relocation of people or existing structures will be required for the project. (See Map, page 23.)

Pollution of groundwater will not result from the proposed installation. No shallow aquifers exist permanently in the area and the soil is extremely impervious under proper compaction during construction. The proposed project will have no effect on the water supply from the wells located in the northeast part of the town.

No change in the value of adjacent property values is anticipated as a result of the project. The project is not expected to adversely affect the recreation potential of the area.

Temporary adverse environmental effects will result during construction. Noise from construction equipment will exist, particularly during the grading of the stabilization ponds. Although control measures will be exercised, blowing dust will occur on windy days. Any debris such as trees, roots, and fencing will be removed from the site for proper disposal. No burning will be permitted at the site.

Some odors may develop in the stabilization ponds in the spring when the ice cover melts and the transition from anaerobic to aerobic conditions takes place. Such odors will be of short duration and result in only a minor irritant because of the location and remoteness of the site.

The project will improve water quality without creating additional environmental problems. The proposed site has a low productivity since most of the land is not farmed and is grazed only periodically. Wildlife habitat, although disturbed temporarily during construction, will essentially be unchanged and probably be improved. The potential for long-term agricultural productivity of the site is minimal.

Additional land is available adjacent to the site for future expansion of the treatment facilities. The present site should be adequate for a minimum of 20 years unless growth of the community occurs at a much higher rate than estimated.

The land for the site of the treatment facilities will be permanently lost to agricultural production, however, the productivity of the area is presently minimal. Some terrestrial wildlife habitat may be lost. Because of the low growth rate of the community, secondary impacts of the project would not be significant.

Fuels and other forms of energy will be utilized during construction. Construction materials will be installed on the project and remain permanently.

The design of the stabilization ponds will result in an aesthetically pleasing appearance. The dikes for the ponds will be at a sufficiently flat slope to prevent erosion. All slopes and the entire developed site will be seeded to native grass. Maintenance and management of the site, such as not mowing until after 1 July, can be such that it can be a good habitat for wildlife.

8. PRELIMINARY DESIGN AND COST ESTIMATES

8.1 Description of Design

The proposed facilities consist of a section of gravity interceptor sewer, lift station, force main and three-cell waste stabilization pond. The design will permit controlled withdrawals from the pond at optimum periods of the year. Overflow from the stabilization pond will be to a watercourse tributary to Turkey Creek. Figure 3 shows a flow diagram and site plan for the proposed facilities.

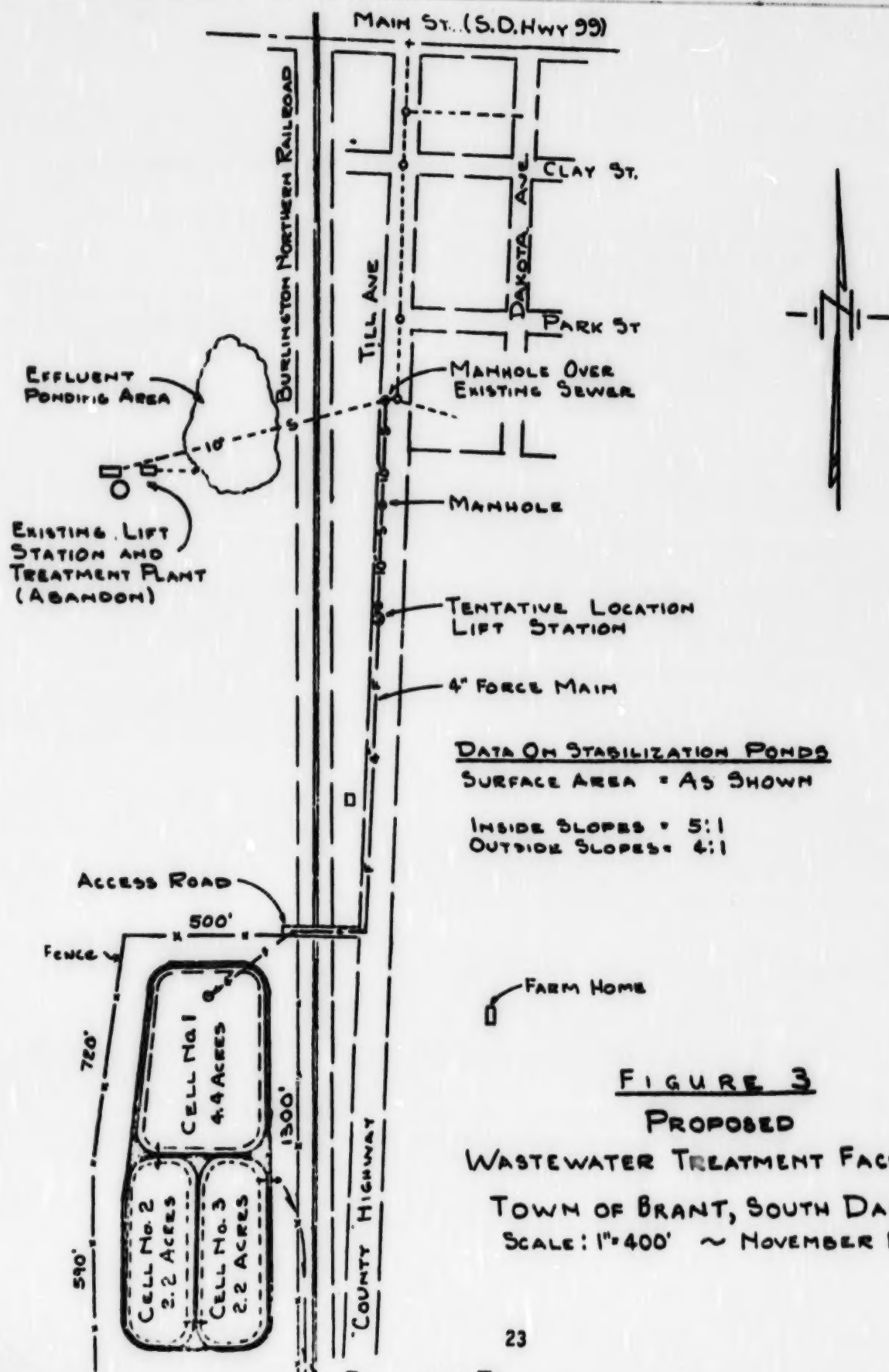


FIGURE 3
PROPOSED
WASTEWATER TREATMENT FACILITIES
TOWN OF BRANT, SOUTH DAKOTA
SCALE: 1" = 400' ~ NOVEMBER 1974

Lift Station

The lift station is designed in accordance with the previous criteria as follows:

Average Flow-----35 Gallons/Minute
Maximum Flow-----88 Gallons/Minute

The proposed lift station will be equipped with two pumps, each with a capacity of 100 gallons per minute. The minimum size of force main from the lift station to the treatment facilities will be 4 inches in diameter. A minimum flow of approximately 100 gallons per minute is required to maintain a velocity in excess of 2 feet per second in the force main and thereby avoid deposition of solids in the line.

A factory built underground lift station is considered most suitable and economical for this installation. A standby motor-generator unit will be furnished for operation of the lift station during power outages.

Design of Stabilization Pond

Design computations and data for the stabilization ponds follow:

Design Criteria.

Design Population Equivalent-----625
B.O.D.-----94 Pounds/Day
Suspended Solids-----125 Pounds/Day
Flow-----50,000 Gallons/Day

Waste Stabilization Pond System

The waste stabilization pond system or controlled discharge pond is designed to receive and retain wastewaters for six months to one year. At the end of this long-term detention, the contents of the pond are discharged during an interval of one to three weeks.

Ponds of this type have operated satisfactorily in Northern States using the following design criteria:

Overall organic loading: 20 - 25 pounds BOD₅/Acre/Day

Liquid depth: not more than 6 feet for the first cell.
Not more than 8 feet for subsequent cells.

Hydraulic detention: At least 6 months above the 2 foot liquid level (including precipitation), but not less than the period of ice cover.

Number of cells: At least 3 for reliability, with piping flexibility for parallel or series operation.

The design of the controlled discharge pond must include an analysis showing that receiving stream water quality standards will be maintained during discharge intervals, and that the receiving watercourses can accommodate the discharge rate from the pond.

Selecting the optimum day and hour for release of the pond contents is critical to the success of this method. The operation and maintenance manual must include instructions on how to correlate pond discharge with effluent and stream quality. The pond contents and stream must be carefully examined through appropriate laboratory tests before and during the release of the pond contents to meet effluent criteria and stream water quality standards.

The design will permit controlled withdrawals from the pond at optimum periods of the year to an intermittent stream to Turkey Creek which is tributary to the Missouri River.

The stabilization pond will be located approximately 2000 feet southwest of the community. The topography of the suggested location is reasonably flat; the land is of low productivity; and the site is accessible. These conditions will substantially reduce the cost of the installation. The closest residence will be approximately 700 feet from the water edge. Experience with operation of stabilization ponds under similar conditions indicates that no problems would be expected, particularly in view of the distance to the nearest dwelling place.

Acquisition of sufficient land for construction of the ponds will be required. The proposed site is in a low area and groundwater has been noted at a depth of two feet during an extremely wet seasons. The ground water level fluctuates with the season and moisture conditions; therefore, the bottom excavation will be limited to not more than one foot. There are several borrow sights within one mile of the proposed location to obtain fill materials to construct the lagoon dikes. Approximately 17 acres of land will be needed for the construction.

The treatment works' structures and electrical and mechanical equipment will be protected from physical damage by the maximum expected one hundred (100) year flood. The treatment works will remain fully operational during the twenty-five (25) year flood.

The stabilization ponds will be designed and constructed to prevent excessive seepage or subsurface percolation. Because of the impervious soil conditions, groundwater aquifers will not be affected. A laboratory analysis of the soil in the area proposed for the stabilization ponds indicated the following:

Type of Soil-----	Clay (CH)
Maximum Dry Density-----	85.0 Pounds/Cubic Foot
Optimum Moisture-----	31.0 Percent
Coefficient of Permeability	
(90% Proctor)-----	6×10^{-9} cm/sec.

The coefficient of permeability is well below the normally allowable value of 3.7×10^{-6} cm/sec. Construction of the stabilization ponds should present no special problems.

8.2 Summary of Cost Estimates

The project development cost estimates for the 3-cell stabilization pond system are summarized in Table 12.

The Town of Brant would be responsible for its share of the Total Project Eligible Cost, i.e., $\$115,200 \times 20\% = \$23,000$ (assuming a Federal Grant of 75% and a State Grant of 5% for eligible costs) plus the \$9,000 cost for the sites and easements. Thus, the Town's financial obligation would be \$32,000.

The estimated annual costs for operation and maintenance of the wastewater system are itemized as follows:

Salaries & Labor-----	\$2,000.00 Per Year
Power-----	200.00 Per Year
Materials & Supplies-----	300.00 Per Year
Total Estimated Cost-----	<u>\$2,500.00 Per Year</u>

9. ARRANGEMENTS FOR IMPLEMENTATION

9.1 Institutional Responsibilities

The Town of Brant, South Dakota, which operates the existing sewerage system, has the legal authority and financial capability to construct and operate the proposed facility. A copy of the resolution of intent of the Town Council to construct and operate the proposed facilities is attached as Exhibit 7.

9.2 Implementation Steps

The recommended implementation and construction schedule follows:

1. Submit Facility Planning Report to the State by 1 July 1975.
2. Receive authorization for engineering design of proposed facilities by 1 October 1975.
3. Submit completed engineering plans and specifications to the State along with applications for all necessary permits for construction to appropriate agencies by 1 December 1975.
4. Sell bonds to finance project by 1 February 1976.
5. Obtain State, Federal, and other agency approval for construction by 1 February 1976.
6. Advertise for construction bids, receive bids, award contract, and commence construction by 1 April 1976.

TABLE 12
Three-Cell Waste Stabilization Pond System
Construction Cost Estimates

No.	Item	Unit	Quantity	Unit Price	Amount
1.	10" V.C.P.	L.F.	600	\$ 8.00	\$ 4,800.00
2.	Standard Manhole	Each	2	800.00	1,600.00
3.	Lift Station	L.S.	-	-	24,000.00
4.	Standby Motor-Generator	L.S.	-	-	3,500.00
5.	Portable Blower	L.S.	-	-	500.00
6.	4" PVC Force Main	L.F.	1,600	5.00	8,000.00
7.	Air Relief Manhole	L.S.	-	-	800.00
8.	Railroad Crossing	L.S.	-	-	2,500.00
9.	Unclassified Excavation	C.Y.	33,000	0.70	23,100.00
0.	Inlet Apron	L.S.	-	-	100.00
1.	Dike Transfer Pipe & Valve	Each	2	2,000.00	4,000.00
2.	Outlet Control Structure	L.S.	-	-	2,500.00
3.	Fencing & Gates	L.F.	3,600	1.50	5,400.00
4.	Seeding	Acre	10.0	250.00	2,500.00
5.	Soil Sterilant	Acre	10.0	125.00	1,250.00
6.	Gravel Surfacing	S.Y.	6,000	0.80	4,800.00
7.	Identification Signs	Each	4	50.00	200.00
8.	Project Sign	L.S.	-	-	150.00
Construction Cost					\$89,700.00
Contingency @ 10%					9,000.00
Engineering @ 15%					14,000.00
Legal & Fiscal @					2,000.00
Administrative					<u>500.00</u>
Total Project Eligible Cost					\$115,200.00
Sites & Easements					<u>9,000.00</u>
Total Project Cost					<u>\$124,200.00</u>

7. Complete construction of all proposed facilities by 1 July 1976.

9.3 Schedule for Preparation of Construction Drawings and for Construction.

The schedule for preparation of construction drawings and specifications and for construction follows:

1. Receive authorization for engineering design and specification by 1 October 1975.
2. Complete site survey and soil tests by 7 October 1975.
3. Complete design, construction drawings and specifications by 15 November 1975.
4. Produce required number of copies of drawings and specifications by 20 November 1975.
5. Meet informally with the South Dakota Department of Environmental Protection and the U.S. Environmental Protection Agency and discuss proposed design and specifications by 25 November 1975.
6. Make any recommended changes to design and specifications and submit completed engineering plans and specification to the State by 1 December 1975.

9.4 Operation and Maintenance

A plan of operation and maintenance will be prepared providing for staffing, management, training, sampling and analysis for effective operation and maintenance of the facility. A State certified operator would be required on a part-time basis especially during the discharge intervals to operate and maintain the facility.

The plan of operation and maintenance will be prepared concurrently with the preparation of the engineering drawing and specifications and submitted with those plans and specifications no later than 1 December 1975.

9.5 Financial Requirements

The present flat rate sewer charge is \$2.00 per month per service for each of the 225 service connections. The estimated annual financing costs to be borne by the town have been calculated for two options on a general obligation bond issue for 20 and 15 year repayment schedules at an interest rate of 6 per cent. The general obligation bonds may be repaid from revenues derived from the user charge system.

1. Bond Issue - \$32,000.00 - 6% - 20 Years

Principal & Interest-----	\$2,790.00
Operation & Maintenance-----	2,500.00
Average Annual Cost-----	<u>\$5,290.00</u>

Cost Per Service-----\$ 1.96 Per Month

2. Bond Issue - \$32,000.00 - 6% - 15 Years

Principal & Interest-----	\$3,295.00
Operation & Maintenance-----	2,500.00
Average Annual Cost-----	<u>\$5,795.00</u>

Cost Per Service (225 Services)-----\$ 2.15 Per Month

A user charge system for operation and maintenance of the publicly owned waste treatment system will be developed based upon Model No. 1 described in the Title II Construction Grants Regulations and will be submitted along with the plan of operation and maintenance. Final project costs will determine the amount of bonds to be issued.

10. SUMMARY OF ENVIRONMENTAL CONSIDERATIONS

10.1 Existing environmental conditions

The South Dakota Department of Environmental Protection has advised the Town of Brant that adequate wastewater treatment facilities must be provided to abate public health hazards and prevent pollution of the downstream watercourse. To date, no formal action has been taken for enforcement.

10.2 Future Environment Without the Project

Section 6.2 of this report describes the future environment without the project or the "no action" plan.

10.3 Evaluation of Alternatives

The alternatives considered included (1) remodeling the existing treatment plant, (2) constructing a 3-cell waste stabilization lagoon, (3) constructing a lagoon of sufficient capacity to completely store all wastewater with no discharge, (4) a package plant, and (5) building lagoons with storage capacity for 9-months of flow with land application during the 3-month growing season.

Section 7.2 of this report describes in detail the evaluation of alternatives with respect to effluent requirements, environmental effects, operational considerations and cost-effectiveness.

On the basis of environmental effects, monetary costs, effluent requirements, operational considerations, and the probable effects on the environment, the proposed method of treatment is by a stabilization pond system.

10.4 Environmental Effects of Selected Plan

The effluent from the new waste treatment facilities will meet or exceed current water quality effluent standards.

Section 7.4 of this report describes in detail the environmental effects of the selected plan.

**Exhibit 1
A-95**

(Include a "Letter of Clearance" on Project Review in Conformance with OMB Circular No. A-95 from the Appropriate State Intergovernmental Clearinghouse.)

**Exhibit 2
Civil Rights Compliance**

(Include a Statement or EPA Form No. 4700-1 (4-72) assuring compliance with Title VI of the Civil Rights Act of 1964.)

**Exhibit 4
Copy of NPDES Permit**

(Include copy of the National Pollution Discharge Elimination System Permit.)

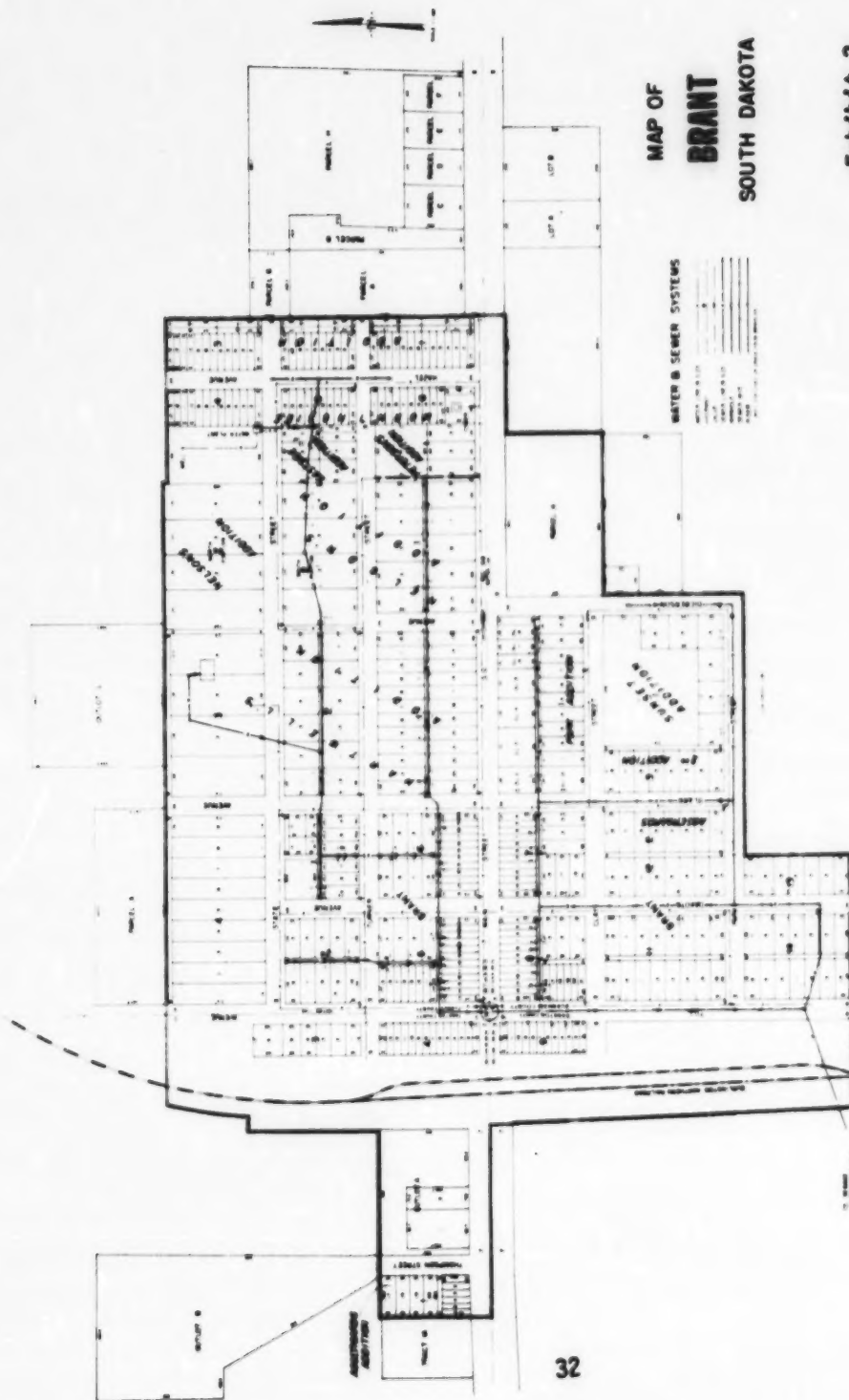


Exhibit 3

**Exhibit 5
Correspondence from Agencies**

If applicable, several sources of information including Regional, State and Federal agencies with responsibility or interest in the Facility Plan should be consulted. Correspondence from these sources, listed below, should be included in the Facility Plan.

<u>SOURCES</u>	<u>SUBJECT</u>
1. Local and Regional Planning Agencies	Land use trends, population projections, planning activities funded under HUD 701 Grants, water quality, air quality, unique or vulnerable environmental features
2. State Historic Preservation Officer	Unique archeologic, historic, scientific or cultural Areas
3. The HUD Regional Office	Flood Risk area identified under the Flood Disaster Protection Act of 1973
4. The State Coastal Zone Management Agency	Coastal zones
5. The Secretary of Interior or Secretary of Agriculture	Wild & Scenic Rivers
6. The Secretary of Interior or Secretary of Commerce	Threatened or endangered species
7. The Fish and Wildlife Service (USDI), The Department of Commerce, or the U.S. Corps of Engineers	Wetlands, flood plains other environmentally sensitive areas

Exhibit 6
Notice of Hearing

Notice is hereby given that a Public Hearing will be held at the Town Hall in the Town of Brant, South Dakota, at 8:00 p.m. on November 4, 1974 to afford the opportunity for individuals to be heard on the economic and social effects of the location, design and environmental impact of wastewater treatment facilities for the Town of Brant, South Dakota.

Maps, drawings, environmental statements and other pertinent data will be available upon request for public inspection and copying from the Town Clerk, Town of Brant, South Dakota.

All persons interested in the design, location and construction of the wastewater treatment facilities are invited to appear and express their views. Written statements may be submitted prior to or at the time of the hearing.

Barbara M. Townsend, Town Clerk

Affidavit of Publication

State of South Dakota
County of Burnham, ss:

Allen Bates, of said county being duly sworn, on oath says that he is the publisher of The Three County News, a weekly newspaper printed and published in Brant, said County of Burnham, and has full and personal knowledge of all the facts herein stated; that said newspaper is a legal newspaper and has a bona-fide circulation of at least two hundred copies weekly, and has been published within said County for fifty-two successive weeks next prior to the publication of the notice herein mentioned, and was and is printed wholly or in part in an office maintained at said place of publication; that the notice and advertisement head NOTICE OF HEARING, a copy of which, taken from the paper in which the same was published, is reproduced above, and is made a part of this Affidavit, was published in said newspaper at least once in each week for 2 successive weeks, on the day of each week on which said newspaper was regularly published, to wit: Thursday, the 3rd day of October, 1974 and Thursday, the 10th day of October, 1974, that the full amount of the fees for the publication of the annexed notice is \$7.77.

Allen Bates, Publisher

Subscribed and sworn to before this 5th day of November, 1974.

Kevin Hardy, Notary Public

Exhibit 6
Record of Public Hearing - Environmental Assessment
Wastewater Treatment Facilities - Town of Brant, South Dakota

In accordance with the Notice of Hearing published October 3 and October 10, 1974, into the Three County News, the Hearing for Wastewater Treatment Facilities was called to order by Michael J. Brant, Chairman of the Town Council of the Town of Brant, South Dakota, at the Town Hall at 8:00 p.m., on November 4, 1974. Persons present were as follows:

Michael J. Brant, Chairman, Town Council
Thomas B. Jones, Member, Town Council
Robert W. Smith, Member, Town Council
Barbara M. Townsend, Town Clerk
John H. Hill, Treasurer
Peter C. Cook, Utilities Superintendent
Ralph Schneider, Police Chief
Mrs. Leslie Sterling, Land Owner

Mr. Brant stated that no written statements had been received prior to the hearing, and requested either written or oral statements from those present. None were received.

Mrs. Leslie Sterling was present as a representative of the family who owns the land on which the proposed waste treatment facilities are to be constructed. The proposed facilities were discussed, and Mrs. Sterling advised the Board that the site was available pending a survey and final details of transfer.

The hearing was adjourned at 8:30 p.m.

Barbara M. Townsend, Town Clerk

Michael J. Brant, Chairman
Town Council

Exhibit 7
Resolution of Intent

Resolution indicating that the Brant Town Government, having the necessary legal, financial, institutional, and managerial resources, intends to construct, operate, and maintain certain proposed treatment works if such works are approved and funded by the State and Federal Governments.

WHEREAS, the Town of Brant possesses the necessary legal, financial, institutional, and managerial resources to construct, operate and maintain sewage treatment works and related facilities; and

WHEREAS, the existing collection, treatment and disposal facilities do not meet current State and Federal requirements; and

WHEREAS, the recently completed facility planning report, prepared in accordance with the Final Construction Grant Regulations, 40 CFR, Part 35, Subpart E, dated February 11, 1974, recommends certain improvements to the Town's collection, treatment and disposal facilities will satisfy State and Federal requirements.

NOW, THEREFORE, BE IT RESOLVED that the Town hereby indicates its concurrence with the proposed recommended facilities in the referenced planning report and the Town's intent to construct, operate, and maintain such proposed facilities in accordance with State and Federal requirements, if said facilities are approved and funded by the State and the U.S. Environmental Protection Agency.

Dated this 4th day June 1975.

Michael J. Brant, Chairman
Town Council

Robert W. Smith, Member
Town Council

Thomas B. Jones, Member
Town Council

Barbara M. Townsend,
Town Clerk